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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,726	10/15/2001	James W. Landes	01-521	3323

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CATERPILLAR INC.
100 N.E. ADAMS STREET
PATENT DEPT.
PEORIA, IL 616296490

EXAMINER

SWENSON, BRIAN L

ART UNIT PAPER NUMBER

3618

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	09/977,726		LANDES ET AL.	
	Examiner		Art Unit	
	Brian Swenson		3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 7-8, 11, 13, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,594,645 issued to Nishimura et al.

Nishimura et al. teaches in Figures 1-38 and respective portions of the specification of a cruise controller for vehicles including an advanced cruise controller for controlling the vehicles speed. The cruise controller has two modes: a tradition cruise control (S-Type) that controls the vehicle's speed based on the vehicle's current speed and an advanced cruise control mode that controls the vehicle's speed based on interval distance (D-Type) that controls the speed between the proceeding vehicle and the vehicle with the controller mounted based on maintaining a predetermined target vehicle interval distance, Col. 2, lines 13-22. Columns 18-20 and Figure 20 teach of the operation of the vehicle when a signal is missing or erroneous. An erroneous signal can be caused by noise in the vehicle's system, Col. 19, lines 22-25. Timer (VT) counts the number of times a signal is missing, Col. 19, lines 64-66. If it the signal is measured to be abnormal, than the control mode of the cruise controller is shifted from (D-type) to (S-Type), slightly different control operations are carried out based on the duration of

the signal missing time. As shown in Figure 1 the system includes a plurality of switches for re-engaging cruise control including a resume and coast switch (65).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-6, 9-10, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,594,645 issued to Nishimura et al. in view of U.S. Patent No. 4,120,373 issued to Fleischer.

Nishimura et al. teaches of disabling the advance (D-Type) cruise control based on a series time steps and not a finite amount of time as in the instant application.

Fleischer teaches, in Figures 1 and 2 and respective portions of the specification of a vehicle speed control system with a dual interrupt safety circuit for a fuel control element in a vehicle. The vehicle's speed control system disengages the coupling (41) to the fuel supply element based on a disabled signal detected that is generated by the operator or by mechanical, electrical or circuit failure which will disable the vehicle speed control system based on a time constant of approximately 200 ms for circuit (60). If the coupling (41) used to disengage the speed control system is defective then there is a secondary means for disabling the vehicle speed control system. Timing circuit (84,85) has a time constant that is long with respect to circuit (60) and uses logic to

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determine whether there is a defect in the coupling based on how long it takes for the throttle to return to engine idle position. If the coupling is found to be defective a malfunction signal is stored in memory (90) and the throttle is returned to an engine idle opening position in approximately 2 seconds, depending on the previous position of the throttle. The malfunction signal is stored in memory (90) disabling control of the speed control system. The malfunction signal can only be cleared by opening the ignition switch or restarting the engine, Cols. 5-8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the vehicle speed control system as disclosed by Fleischer into the cruise controller for vehicles disclosed by Nishimura et al. to allow for a secondary means of safety for determining that the advance cruise control taught by Nishimura et al. has been properly disengaged when signals are detected that could possibly be erroneous (Nishimura et al., Col. 19, lines 22-25) and for verifying by means of a secondary timing loop disclosed by Fleischer that the coupling means is not defective and if the coupling means is found to be defective the use of cruise control system is disabled until the engine is restarted. In regards to claims 5 and 6 Fleischer discloses the claimed invention with a first time period of about 200 ms and a second time period of greater than 2000 ms. It would have been obvious to one having ordinary skill in the art at the time the invention was made to the two time periods could be chosen to be about 500 and 3500 ms, respectfully since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and by Fleischer's disclosure on Col. 4, lines 17-43 that the time

constants are dependent on resistor in the RC circuits and that a resistor that is well known in the art could be selected to produce the required time constant.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,226,588 issued to Teramura et al. teach of an informing apparatus for an advance cruise control system that logically determines whether the cruise control is on or off and what state the cruise control operates.

U.S. Patent No. 5,695,020 issued to Nishimura teaches of a cruise control system that can operate in two modes: a predetermined speed based and a vehicle interval based cruise control mode.

U.S. Patent No. 5,054,570 issued to Naito et al. teaches a cruise control apparatus that includes means for detecting a faulty signal. If a faulty signal is detected for more than a predetermined period of time the use of cruise control is inhibited.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Swenson whose telephone number is (703) 305-8163. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Johnson can be reached on (703) 308-0885. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



bls
December 2, 2002

Brian Swenson
Examiner
Art Unit 3618



BRIAN L. JOHNSON 12/2/02
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600